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BEFORE THE ARIZONA CORPORATION COMMISSION

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IN THE MATTER OF THE APPLICATION OF) DOCKET NO. E-01749A-11-0235
 GRAHAM COUNTY ELECTRIC COOPERATIVE,))
 INC. FOR APPROVAL OF ITS ELECTRIC))
 ENERGY EFFICIENCY IMPLEMENTATION))
 PLAN FOR 2012 AND 2013.))
))
))
))

Compliance Filing – Energy
 Efficiency Report

Graham County Electric Cooperative, Inc. ("GCEC" or the "Company") submits its
 Energy Efficiency Report in Compliance with A.A.C. R14-2-2409.

RESPECTFULLY SUBMITTED this 27th day of March 2014.

By Than W. Ashby

Than Ashby

Graham County Electric Cooperative, Inc.

Original and 13 copies of the foregoing
 filed this 27th day of March 2014 with:

Docket Control
 Arizona Corporation Commission
 1200 West Washington Street
 Phoenix, Arizona 85007

Arizona Corporation Commission
 DOCKETED

FEB 28 2014

DOCKETED BY

[Signature]

Graham County Electric Cooperative, Inc.

DSM Progress Report – Pursuant to R14-2-2409 March 2014

In compliance with the Energy Efficiency (EE) reporting requirements in R14-2-2409, GCEC submits this DSM progress report for the EE plan that was approved in Decision No. 73257 dated July 30, 2012 and in Decision No. 74088 dated September 23, 2013.

1. An analysis of the affected utility's progress towards meeting the annual energy efficiency standard.

The chart below shows the Energy Efficiency standards approved by the Arizona Corporation Commission (ACC) for Cooperatives and the progress GCEC has made toward those standards.

Year	2012	2013
ACC EE Requirement	3.00%	5.00%
Co-op EE Requirement (75%)	2.25%	3.75%
GCEC Sales (MWh)	165,479	155,679
Co-op EE Target (MWh)	3,645	6,205
Total Resources (MWh)	75	191
Total Accumulated Resources (MWh)	75	266
Surplus/(Deficit) to Target (MWh)	(3,570)	(5,939)
Actual % Savings	0.05%	0.16%

GCEC has accumulated 266 MWh or 0.16% in energy efficiency savings as of December 31, 2013. All programs authorized in the EE plan were utilized in 2013 however some were implemented later in the year and in the case of the "Residential Conservation Behavior Program", savings data will not be available until after one full year of implementation (May 2014). The requirement for Co-ops was 3.75% cumulative savings in 2013. GCEC was granted a waiver by the ACC (Decision No. 73257) of the cumulative Energy Efficiency Standard requirement in A.A.C. R14-2-2404.

The following table shows the amount of funds collected and the expenditures for all programs in the GCEC 2013 EE plan:

	TOTAL
2013 COLLECTIONS	109,027.49
2013 BUDGET	103,271.00
DIRECT COST	28,280.49
ADMINISTRATION	2,437.86
ADVERTISING	1,023.45
TOTAL EXPENSES	31,741.80
BALANCE:	71,529.20

2. A list of the affected utility's current Commission-approved DSM programs and DSM measures organized by customer segment.

The list below shows all of the current Commission approved DSM programs. The programs were designed primarily for the residential customer segment; however, non-residential customers may participate in the CFL Lighting Program.

- a. Refrigerator/Freezer Appliance Recycling Program
- b. CFL Lighting Program
- c. Residential Low Income Weatherization Program
- d. Residential Conservation Behavior Program

3. A description of the findings from any research projects completed during the previous year.

GCEC did not perform any research projects during the previous year. All of the approved EE programs are new to GCEC's service territory and some have only recently been fully implemented. GCEC will continue to monitor the progress made with each program to measure their effectiveness and cost/benefit.

4. The following information for each Commission-approved DSM program or DSM measure:

- a. A brief description
- b. Goals, objectives, and savings targets
- c. The level of customer participation during the previous year
- d. The costs incurred during the previous year, disaggregated by type of cost, such as administrative costs, rebates, and monitoring costs
- e. A description and results of evaluation and monitoring activities during the previous year
- f. Savings realized in kW, kWh, therms, and Btus, as appropriate
- g. The environmental savings realized, including emissions and water savings
- h. Incremental benefits and net benefits, in dollars
- i. Performance-incentive calculations for the previous Year
- j. Problems encountered during the previous year and proposed solutions
- k. A description of any modifications proposed for the following year
- l. Whether the affected utility proposes to terminate the DSM program or DSM measure and the proposed date of termination.

A. Refrigerator/Freezer Appliance Recycling Program

- (a) The purpose of this program is to provide incentives for GCEC members to remove secondary old refrigerators and freezers from their homes. Further, these appliances will be recycled responsibly through a process that captures all the hazardous materials (including CFC-11 and CFC-12, oils, PCBs, mercury) and recycles as much material as possible (>95%). GCEC has partnered with JACO Environmental Inc. to manage this program. During the enrollment period (July – September), GCEC members are able to schedule free pickup and recycling of qualified appliances. The member will also receive a \$50 incentive check per appliance. (Limit two appliances per customer account per calendar year. Appliances must be in working condition to qualify.)

(b) The chart below shows goals and savings targets for 2013:

	Year	2013
<u>Appliance Recycling Program (JACO)</u>		
# of Appliances		60
Average Savings Per Unit (kWh)		811
Total Savings Per Year (kWh)		48,660
Total Savings Per Year (MWh)		49
Cumulative Savings (MWh)		49

(c) A total of 33 customers participated in this program in 2013.

(d) The chart below shows the direct implementation costs incurred for 2013. GCEC only tracks the administrative and advertising costs for all programs on an aggregated basis as shown in section 1 of this report.

<u>EE PROGRAM</u>	<u>VENDOR</u>	<u>TOTAL</u>	<u>2013 BUD</u>	<u>VAR (\$)</u>
Appliance Recycling Program	JACO	4,851.00	10,079	5,228.00

(e) GCEC relied upon the third party implementation provider (JACO) expertise to estimate the number of appliances that would be recycled. GCEC had a goal of 60 units and was only able to achieve 33 units. 33 units per year may be a more realistic goal given the number of services we have and the rural nature of our service territory. GCEC plans to kick off a new round of advertising for this program starting in May or June to increase awareness and maximize the program participation during the open enrollment months of July through September.

(f) The chart below shows the actual savings in kWh achieved in 2013:

	Year	2013
<u>Appliance Recycling Program (JACO)</u>		
# of Appliances		33
Average Savings Per Unit (kWh)		811
Total Savings Per Year (kWh)		26,763
Total Savings Per Year (MWh)		27
Cumulative Savings (MWh)		27

(g) According to the EPA website (<http://www.epa.gov/cleanenergy/energy-resources/calculator.html>), 26,763 kWh saved equals approximately 18.9 metric tons of carbon dioxide emissions avoided or about the same amount of carbon dioxide emissions from the electricity use of 2.6 homes for one year.

(h) Based on the current residential rate of \$0.11038 per kWh, GCEC members saved approximately \$2,954.10 in 2013 with this program.

(i) N/A

(j) No significant problems were encountered with this program.

(k) No modifications are proposed at this time.

(l) No plans to terminate this program at this time.

B. CFL Lighting Program

- (a) The purpose of this program is to promote the installation of high-efficiency Compact Fluorescent Lamps (CFLs) in homes within the GCEC service territory. The program will provide discount pricing from CFL retailers. GCEC members will be referred to participating retailers to purchase qualifying CFLs and the discount pricing will be passed on to GCEC's members through a negotiated agreement with the retailer. GCEC has partnered with the local ACE Hardware store to provide discount pricing on CFLs.
- (b) The chart below shows goals and savings targets for 2013:

	Year	2013
<u>CFL Lighting Program (ACE Hardware)</u>		
Total Savings (Watts)		129,485
Total Savings Per Year (kWh)		141,786
Total Savings Per Year (MWh)		142
Cumulative Savings (MWh)		142

- (c) Customer participation has been steady in this program since it was implemented on August 26, 2012 in partnership with the local ACE Hardware store. A total of 536 CFL light bulb packs or 3,018 CFL bulbs have been sold to GCEC members under this program in 2013.
- (d) The chart below shows the direct implementation costs incurred for 2013. GCEC only tracks the administrative and advertising costs for all programs on an aggregated basis as shown in section 1 of this report. The budget for the year was exceeded by \$929.49 which was determined by management to be acceptable given the level of participation in this program and the ability of the company to shift funds between programs as approved in Decision No. 73257 and 74088.

<u>EE PROGRAM</u>	<u>VENDOR</u>	<u>TOTAL</u>	<u>2013 BUD</u>	<u>VAR (\$)</u>
CFL Lighting Program	ACE Hardware	6,929.49	6,000	(929.49)

- (e) This program continues to show strong results as evidenced by the 162 MWh savings achieved compared to the 142 MWh goal for 2013. GCEC continues to monitor the effectiveness of this program as time passes and more data is available.
- (f) The chart below shows the actual savings in kWh achieved in 2013:

	Year	2012	2013
<u>CFL Program (ACE Hardware)</u>			
Total Savings (Watts)		68,620	147,948
Total Savings Per Year (kWh)		75,139	162,003
Total Savings Per Year (MWh)		75	162
Cumulative Savings (MWh)		75	237

GCEC has exceeded its goal for this program in 2013. It's anticipated that GCEC will continue to show strong savings in this program for 2014.

- (g) According to the EPA website (<http://www.epa.gov/cleanenergy/energy-resources/calculator.html>), 162,003 kWh saved equals approximately 114 metric tons of

carbon dioxide emissions avoided or about the same amount of carbon dioxide emissions from the electricity use of 15.7 homes for one year.

- (h) Based on the current residential rate of \$0.11038 per kWh, GCEC members saved at total of approximately \$17,881.89 in 2013 with this program.
- (i) N/A
- (j) No significant problems were encountered with this program.
- (k) No modifications are proposed at this time.
- (l) No plans to terminate this program at this time.

C. Residential Low Income Weatherization Program

- (a) GCEC has partnered with non-profit organizations such as Southeastern Arizona Community Action Programs (SEACAP) to provide funding and support for existing low income weatherization programs. The goal of this program is to improve energy efficiency in homes in the GCEC service area by assisting low-income residents in reducing energy use and lowering their utility bills by implementing year-round weatherization measures. This program is provided at no cost to eligible GCEC members whose income is at or below 200% of Federal Poverty Guidelines. The program includes a SEACAP representative determining the work needed and installing weatherization measures on approved homes and structures, including caulking and weather-stripping, insulation (attic, wall, & duct), and other energy efficiency measures as needed. Interested GCEC members must contact SEACAP for an application by calling 928-428-4653.
- (b) The chart below shows goals and savings targets for 2013:

	Year	2013
<u>Residential LIW Program (SEACAP)</u>		
Total Savings Per Year (kWh)		94,198
Total Savings Per Year (MWh)		94
Cumulative Savings (MWh)		94

- (c) GCEC was not able to secure a signed contract with SEACAP until September 5, 2013 and therefore had not fully implemented this program until late in the year. The reasons for this delay were discussed in more detail in the 2013 DSM progress report. As a result, SEACAP was only able to assist one GCEC customer under this program in 2013. GCEC has scheduled a meeting with SEACAP on March 18, 2014 to discuss how the program is working and ways to improve program participation. If program participation cannot be improved in 2014 then GCEC may decide to use a different vendor such as SEACUS or request to modify and/or discontinue this program.
- (d) The chart below shows the direct implementation costs incurred for 2013. GCEC only tracks the administrative and advertising costs for all programs on an aggregated basis as shown in section 1 of this report.

<u>EE PROGRAM</u>	<u>VENDOR</u>	<u>TOTAL</u>	<u>2013 BUD</u>	<u>VAR (\$)</u>
Residential LIW Program	SEACAP	1,500.00	49,000	47,500.00

- (e) GCEC continues to monitor this program for participation and effectiveness. As discussed in response to question (c), GCEC has scheduled a meeting with SEACAP representatives to further evaluate this program.
- (f) The chart below shows the actual savings in kWh achieved in 2013:

	Year	2013
<u>LW Program (SEACAP)</u>		
Total Savings Per Year (kWh)		2,542
Total Savings Per Year (MWh)		2.5
Cumulative Savings (MWh)		2.5

- (g) According to the EPA website (<http://www.epa.gov/cleanenergy/energy-resources/calculator.html>), 2,542 kWh saved equals approximately 1.8 metric tons of carbon dioxide emissions avoided or about the same amount of carbon dioxide emissions from the electricity use of 0.247 homes for one year.
- (h) Based on the current residential rate of \$0.11038 per kWh, GCEC members saved at total of approximately \$280.59 in 2013 with this program.
- (i) N/A
- (j) See response provided in question (c).
- (k) See response provided in question (c).
- (l) See response provided in question (c).

D. Residential Conservation Behavior Program

- (a) The purpose of this program is to find ways to better educate GCEC members on how to conserve energy usage through behavior modifications and other energy conservation measures. GCEC has partnered with Enerlyte to manage this program. Residential customers will be provided with energy efficiency reports and information specific to their individual homes and circumstances directly on their utility bill. The reports will provide detailed comparisons and energy savings tips to participating members at no additional charge. Members not wanting to receive this comparison information on their bill will have the choice to opt-out of the program. Please visit www.enerlyte.com to find more information regarding Enerlyte and this program.
- (b) The chart below shows goals and savings targets for 2013:

	Year	2013
<u>Residential Conservation Behavior Program (Enerlyte)</u>		
Total Savings Per Year (kWh)		1,491,206
Total Savings Per Year (MWh)		1,491
Cumulative Savings (MWh)		1,491

- (c) GCEC implemented this program with residential customer bills starting in May 2013. Since that time, residential customers have received energy usage reports and savings tips directly on their bill. All residential customers are enrolled in the program with the exception of a small percentage of customer that Enerlyte uses as a "control" group for comparison purposes and to measure the effectiveness of the program.

- (d) The chart below shows the direct implementation costs incurred for 2013. GCEC only tracks the administrative and advertising costs for all programs on an aggregated basis as shown in section 1 of this report.

<u>EE PROGRAM</u>	<u>VENDOR</u>	<u>TOTAL</u>	<u>2013 BUD</u>	<u>VAR (\$)</u>
Conservation Behavior Program	Enerlyte	15,000.00	23,300	8,300.00

- (e) GCEC continues to monitor this program for participation and effectiveness. Enerlyte is tracking the customer usage and requires a full year of statistical data before it can accurately measure the energy savings and overall effectiveness of the program. Since the program was not implemented until May 2013, savings data will not be available until after May 2014.
- (f) Not available. See response to question (e).
- (g) Not available. See response to question (e).
- (h) Not available. See response to question (e).
- (i) N/A
- (j) The only challenge GCEC experienced with this program was the initial implementation which was done in conjunction with a complete redesign of the monthly utility billing statement. Programming issues forced the delay of the initial implementation to May 2013. However since that time, the program has been working without any issues.
- (k) No modifications are proposed at this time.
- (l) No plans to terminate this program at this time.